

### **REMARKS**

Claims 1-7 and 9-19, as amended, and new claims 20-21 are pending in this application. In this Response, Applicants have amended certain claims because Applicants believe these amendments serve a useful clarification purpose, and are desirable for clarification purposes, independent of patentability. Accordingly, Applicants respectfully submit that the claim amendments do not limit the range of any permissible equivalents.

In particular, independent claim 1 has been rewritten to include the specific mean size ranges of the pre-vulcanized or pre-crosslinked powder prior to the high temperature, high pressure treatment, which is supported by the present Specification (Page 13, lines 6-18). Independent claim 13 has been amended to use the pre-vulcanized or pre-crosslinked powder only in the cover. *See* Specification Page 29, lines 12-22.

New claims 20-21 have been added to recite additional embodiments of the invention and are supported by the present Specification at Pages 15 and 16 at lines 25-27 and lines 2-3, respectively. As no new matter has been added by the amendments herein, Applicants respectfully request entry of these amendments at this time.

### **THE REJECTION UNDER 35 U.S.C. § 102**

#### **Rejection Based Upon Hiraoka**

Claims 13-19 were rejected under 35 U.S.C. § 102(b) as anticipated by U.S. Patent No. 5,574,107 to Hiraoka *et al.* as set forth on page 2 of the Office Action. Hiraoka does not disclose or suggest the present invention for the reasons that follow.

Hiraoka generally describes the inclusion of a base rubber, a vulcanizing agent, and a vulcanized rubber powder in the golf ball core or intermediary layers. *See* Abstract. In particular, Hiraoka teaches that the vulcanized rubber powder may be included in the rubber composition in an amount ranging from 1 to 35 parts by weight, and, more particularly, 5 to 20 parts per weight, based on 100 parts by weight of the rubber component. *See* Col. 4, lines 15-17. In contrast, the present invention, as now recited in independent claims 13 and 16, is directed to golf ball layers including high levels of pre-vulcanized or pre-crosslinked materials, *i.e.*, in amounts greater than 60 parts by weight per 100 parts of based rubber. *See, e.g.*, Written Description at Page 4, lines 22-24. Not only does Hiraoka not disclose this high level of pre-

vulcanized material, Hiraoka also *teaches away* from including more than 35 parts by weight of vulcanized rubber powder because the workability during mixing is inferior. Col. 4, lines 20-21. And, it is clear from this instruction, and the teaching to use conventional mixing methods such as rolling, kneading, or mixing with a Banbury mixer, that Hiraoka does not use a high pressure, high temperature sintering, as presently recited.

Furthermore, claim 14 has been amended to further define the layer including the pre-vulcanized or pre-crosslinked material as the golf ball cover. While Hiraoka teaches the addition of pre-vulcanized or pre-crosslinked rubber powder only to the final rubber composition of the core or intermediary layers, the disclosure is completely silent as to the inclusion of the powder in the cover. *See, e.g.*, Col. 7, lines 9-13 and lines 20-25. As such, a skilled artisan would not have been motivated to use the powder in the cover, given the different properties required between the cover and other layers of the golf ball.

For at least these reasons, Applicants respectfully submit that Hiraoka does not anticipate the present invention. Thus, Applicants respectfully request reconsideration and withdrawal of the rejection based on Hiraoka.

### **THE REJECTION UNDER 35 U.S.C. § 103**

#### **Rejection Based Upon Hiraoka and Maruko**

Claims 1-12 were rejected under 35 U.S.C. § 103(a) as obvious over U.S. Patent No. 5,574,107 to Hiraoka *et al* in view of No. 6,465,573 to Maruko *et al.* as set forth on pages 2-3 of the Office Action. As discussed in detail above, Hiraoka does not disclose or even suggest the present invention. For example, Hiraoka teaches that a vulcanized powder rubber may be included in a golf ball layer in an amount of 1 to 35 parts by weight of the base rubber (Col. 4, lines 15-17), whereas independent claim 1 features a golf ball layer including a pre-vulcanized material in an amount of greater than 60 parts by weight of the base rubber. In an attempt to cure the deficiencies of the primary reference in this regard, the Examiner has cited Maruko for its disclosure appearing on Col. 3, lines 24-28. A skilled artisan would not have been motivated, however, to make such a combination without relying on the present invention for at least the following reasons.

While Maruko does teach that a golf ball layer may include a pre-vulcanized rubber powder in amounts up to 75 weight percent in an admixture with a thermoplastic resin (Col. 3, lines 24-28), Hiraoko *teaches away* from including greater than 35 parts by weight of a vulcanized powder rubber (Col. 4, lines 15-17). In fact, Hiraoko instructs the skilled artisan to avoid larger amounts of vulcanized rubber powder because the workability during mixing is inferior. Col. 4, lines 20-21. As such, one of ordinary skill in the art would not have been motivated to modify Hiraoka's amount of vulcanized rubber powder in view of Maruko without the improper use of hindsight.

Furthermore, the particle size of the rubber powder in Maruko is significantly greater than that which is presently claimed and also that which is taught by Hiraoka. For example, Hiraoka teaches that the size of the particles should not be more than 1 mm. Col. 3, lines 58-65. In contrast, Maruko teaches that the particles should at least be 0.7 mm, preferably up to 3 mm. Col. 3, lines 16-30. In fact, Maruko *teaches away* from using a rubber powder with a particle size outside of the disclosed range because of the detrimental effects on resilience. Col. 3, lines 19-23. Based on this difference in particle size, one of ordinary skill in the art would have had no motivation to pick and choose various portions of each reference to arrive at the present invention unless the present invention were used as a template.

For these reasons, Applicants respectfully submit that the combination of Hiraoka and Maruko does not suggest the present invention. As such, Applicants respectfully request that the rejection based on the combination be reconsidered and withdrawn.

### **CONCLUSION**

All claims are believed to be in condition for allowance. If the Examiner believes that the present amendments still do not resolve all of the issues regarding patentability of the pending claims, Applicants invite the Examiner to contact the undersigned attorneys to discuss any remaining issues.

A Petition for Extension of Time is submitted herewith to extend the time for response one month to and including January 3, 2005 (because January 1, 2005 falls on a Saturday). A Fee Sheet Transmittal is also submitted herewith to reflect this fee.

No other fees are believed to be due at this time. Should any fee be required, however,

please charge such fee to Swidler Berlin, LLP Deposit Account No. 195127, Order No. 20002.0269.

Respectfully submitted,  
SWIDLER BERLIN, LLP

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